May 19, 2005

EA 03-025, EA 03-131
EA 03-172, EA 03-214
EA 04-231

Mr. Mark B. Bezilla
Vice President - Nuclear, Davis-Besse
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: CLOSURE OF NRC INSPECTION MANUAL CHAPTER 0350 OVERSIGHT PANEL FOR DAVIS-BESSE NUCLEAR POWER STATION; DISPOSITION OF FINDINGS IDENTIFIED DURING THE IMC 0350 PROCESS; AND INSPECTION SCHEDULE UPDATE (INSPECTION REPORT NO. 50-346/05-012)

Dear Mr. Bezilla:

This letter notifies you of the transition of oversight of Davis-Besse from the NRC Inspection Manual Chapter (IMC) 0350, "Oversight of Operating Reactor Facilities in an Extended Shutdown as a Result of Significant Performance Problems," Oversight Panel to the Reactor Oversight Process. Additionally, this letter documents the closure of the White finding associated with the design control for the station's high pressure injection pumps, the Yellow finding associated with the failure to effectively implement corrective actions for design control issues related to deficient containment coatings and other debris, and the Red finding associated with the reactor vessel head degradation. Finally, this letter provides the schedule for inspections that will be conducted at your facility over the next 18 months, including inspections that will be conducted beyond those prescribed in the baseline Reactor Oversight Process (ROP), which have been determined to be necessary to monitor your efforts to sustain improved plant performance improvement and compliance with the Confirmatory Order requirements.

Background

Davis-Besse began the extended thirteenth refueling outage on February 16, 2002. During that outage, significant degradation of the reactor vessel head was identified, resulting in the NRC issuing a Confirmatory Action Letter to FirstEnergy Nuclear Operating Company (FENOC). In April 2002, the NRC performed an AIT inspection, and on April 29, 2002, in response to the findings of that inspection, the NRC implemented IMC 0350 at Davis-Besse and suspended the routine reactor oversight process. The Davis-Besse IMC 0350 Oversight Panel was comprised of staff from various NRC offices to better facilitate the coordination of the NRC's activities with respect to Davis-Besse. The purpose of the Oversight Panel was to verify that your corrective actions were sufficient prior to authorizing restart of the facility and to provide assurance that

following restart the facility will be operated in a manner that provides adequate protection of public health and safety.

To accomplish these purposes, the Oversight Panel developed several tools to track and assess your corrective actions and performance improvement initiatives, including the Process Plan and Restart Checklist. The Process Plan not only identified actions to be completed to ensure corrective actions have been completed prior to restart, but also addresses activities that must be completed to assure the Panel that the facility can be returned to the Reactor Oversight Process described in Inspection Manual Chapter 0305, “Operating Reactor Assessment Program.”

Your staff completed extensive actions in preparation for restart, including modification of the High Pressure Injection pumps to handle post-loss of coolant accident (post-LOCA) debris, installation of a larger containment sump to prevent clogging post-LOCA, cleaned and repainted the inside of containment to remove unqualified and degraded coatings, removed almost all fibrous material from inside containment, performed extensive system reviews, reviewed the training needs for personnel and modified training to reflect the results of that review, held numerous meetings to improve communications between staff and management, trained staff on lessons learned, installed a leak detection system underneath the reactor vessel, replaced the ombudsman program with a structured employee concerns program, and established a formal safety conscious work environment program.

Prior to authorizing restart, the NRC staff completed its inspection, assessment, and licensing activities which evaluated the effectiveness of your actions to address the issues that resulted in the degradation. In its November 23, 2003, integrated restart report and in its Cycle 14 Improvement Plan, FENOC committed to a number of improvement initiatives intended to ensure that the improvements realized during the extended outage remained in place.

On February 26, 2004, FENOC executed a consent form in which it committed to the conditions of the Confirmatory Order, which was issued by the NRC on March 8, 2004. The Order added two conditions to the plant's operating license. The first condition required independent assessments for five years in the areas of operations, engineering, corrective actions, and safety culture/safety conscious work environment (SC/SCWE). The second condition required inspection and evaluation of the reactor coolant system pressure boundary during the January 2005 mid-cycle outage.

Based on your satisfactory resolution of all the issues contained in the Restart Checklist, the commitments made by FENOC for improvement contained in its integrated restart report, and the additional requirements imposed on your staff by the NRC's Confirmatory Order, the NRC concluded that the plant was safe for restart and operation. The NRC’s decision to lift its restrictions on the restart of Davis-Besse and basis for the decision were described in a March 8, 2004, letter to FENOC. The letter addressed Confirmatory Action Letter closure, Restart Checklist closure, coordination of the restart decision with other federal agencies,

FENOC commitments, issuance of a Confirmatory Order, and continuation of enhanced NRC regulatory oversight of Davis-Besse after restart.

An inspection schedule letter was issued on March 8, 2004, describing NRC's planned inspections. These included a restart special inspection to observe around-the-clock transition to startup and power operation, special inspections to assess FENOC's implementation of commitments for continued performance improvement during the current operating cycle, compliance with the Confirmatory Order, and enhanced inspections to gain perspective in areas monitored by NRC Performance Indicators (PIs) where the Davis-Besse Oversight Panel had determined that the PIs did not afford sufficient insight into plant performance because of the extended shutdown.

Additional information regarding Oversight Panel activities leading up to the restart of the facility in March 2004 is documented in the March 8, 2004, letter which granted approval to restart the Davis-Besse Nuclear Power Station, closed the Confirmatory Action Letter, and issued the Confirmatory Order (ML040641171).

Continued Oversight Post-Restart

The Oversight Panel approved an inspection strategy which included special inspections of the areas required by the Confirmatory Order and focused special inspections into areas that the Oversight Panel determined were warranted. These areas included operational performance, the quality of engineering activities, the corrective action program implementation, and the effectiveness of the safety culture improvement initiatives, along with NRC performance indicators where those indicators were not providing useful insights due to the extended shutdown.

Additionally, during the mid-cycle outage, the NRC inspectors evaluated your inspection for leakage from the reactor pressure vessel upper head and from pressure-retaining components above the head. In addition, your inspections for leakage from the reactor vessel lower head incore monitoring instrumentation nozzles were evaluated. No pressure boundary leakage was identified.

At the time of restart, several of the performance indicators did not afford sufficient insight into plant performance because of the extended shutdown. The specific performance indicators were Unplanned Scrams, Scrams with Loss of Normal Heat Removal, Unplanned Power Changes, Emergency AC Power System Unavailability, High Pressure Injection System Unavailability, Heat Removal System Unavailability, Safety System Functional Failures, Reactor Coolant System Activity, and Reactor Coolant System Leakage. Based on the completion of enhanced inspection activities and the evaluation of the data submitted by you for each of the performance indicators, the Oversight Panel determined that the information provided by the performance indicators was meaningful and that the Performance Indicators would be returned to normal monitoring under the baseline inspection program of the ROP. This decision was previously provided to you in our February 11, 2005, letter.

Confirmatory Order Status

Your staff has completed the March 8, 2004, Confirmatory Order required Independent Assessments for CY2004 and the Cycle 14 mid-cycle (January through February, 2005) reactor

pressure vessel upper/lower head bare metal inspections. The reactor pressure vessel inspections revealed no reactor coolant system pressure boundary leakage. Inspectors also evaluated the results of the independent assessments and determined that they were adequate to meet the requirements of the Order. The results of the Independent Assessments and NRC inspection activities can be summarized briefly as follows:

Operations performance has improved;

Engineering performance showed some improvement but a large backlog of work remains;

While the Independent Assessment concluded that the implementation of the Corrective Action program showed marginal improvement in most areas and was rated unsatisfactory in one area (trending), the NRC's assessment concluded that this program was showing improvement, and that the Independent Assessment had focused on activities performed before implementation of your improvement initiatives; and

While the Independent Assessment concluded that SC/SCWE was stable with declining responses in a few areas, the NRC's assessment concluded that subsequent to the mid-cycle outage, SC/SCWE had shown improved response.

These results illustrate that your staff is performing at a level that will ensure safe operation of the facility. Nevertheless, the NRC requires independent outside assessments to ensure continued effective self-assessments and sustained safe performance.

Basis for the Transition of Davis-Besse to the ROP Under the Regulatory Response Column (Column II) of the Action Matrix - Disposition of Findings Identified During the 0350 Process

As noted in our letters to you dated March 8 and September 7, 2004, three colored findings were administratively held open while the facility remained under the 0350 Process to ensure that closure would not occur until all actions associated with the Restart Checklist had been completed by your staff and the plant had restarted. The first issue was a Cited Violation (EA 03-172) and White finding associated with the design control of the station's high pressure injection pumps. This issue was evaluated by inspectors as satisfactorily resolved and closed in Inspection Report 05000346/2004007.

The second issue was a Cited Violation (EA 03-131) and Yellow finding associated with the failure to effectively implement corrective actions for design control issues related to deficient containment coatings, uncontrolled fibrous materials and other debris in containment. This issue was evaluated by inspectors as satisfactorily resolved and closed in Inspection Report 05000346/2004014.

The third issue was the Red finding issued to you on May 29, 2003 (EA 03-025), associated with the performance deficiency that resulted in the control rod drive mechanism penetration cracking and reactor pressure vessel head degradation discovered in February and March 2002 (Inspection Report 05000346/2003-016). Subsequently, on April 21, 2005, a Notice of Violation

and Proposed Imposition of Civil Penalty was issued to you. The only remaining open enforcement issue associated with the Red finding is the receipt of your response to the April 21, 2005, Notice of Violation and Proposed Imposition of Civil Penalty, and the Agency's disposition of that response.

As stated in our March 8 and September 7, 2004 letters, the Oversight Panel has determined that your corrective actions and performance in the areas which contributed to the severe wastage on the reactor vessel head are acceptable and that all inspection activities necessary to close the associated Red finding have been completed. Any followup activities associated with addressing your response to the NOV and the Civil Penalty will be handled under the normal enforcement process.

Given that the Oversight Panel has concluded that corrective actions have been completed for the Red finding, and that the finding has been open for more than four calendar quarters; the Oversight Panel has determined that the above Red, Yellow, and White findings will not be carried forward into the ROP Action Matrix. For administrative purposes, this letter is issued as a separate NRC Inspection Report, No. 05000346/2005-012.

Utilizing guidance contained in IMC 0350, the Oversight Panel developed and implemented the appropriate inspection activities to ensure that your performance was acceptable in the following areas:

- establishment of an effective long-range improvement plan;
- implementation of an adequate corrective action program;
- demonstration of safe plant operation and overall improving performance; and
- implementation of adequate controls to address the plant-specific issues that caused IMC 0350 to be implemented.

In addition to the criteria listed above, the Oversight Panel has also ensured that:

- your staff had adequately completed all actions to remain in compliance with the March 8, 2004, Confirmatory Order;
- your staff had confirmed during the Cycle 14 mid-cycle outage that no reactor coolant system pressure boundary leakage existed; and
- the PIs are valid indicators of plant performance.

After evaluating your performance in the areas discussed above, the Oversight Panel determined that your staff's performance for each was acceptable and further oversight by the Oversight Panel was no longer necessary. On May 9, 2005, the Oversight Panel issued a memo recommending return of the plant to the ROP. On the basis of this recommendation, I

have consulted with the Director of NRR and the Deputy Executive Director for Reactor Programs and determined that return of Davis-Besse to the ROP is warranted.

Based on the White finding identified in the Emergency Preparedness Cornerstone that was issued on May 5, 2005, (EA 04-231), current plant performance, and the results of our inspections conducted to date, I have concluded that your facility will be returned to the Reactor Oversight Process in the Regulatory Response Column (Column II) of the Action Matrix, effective July 1, 2005. The effect of returning to the ROP is that inspection planning and routine public meetings will be conducted as described in the Action Matrix of the ROP.

Inspection Schedule Under the Reactor Oversight Process (ROP)

Although your staff's performance has continued to improve, the NRC believes that Davis-Besse continues to warrant additional NRC oversight. This oversight is intended to follow up on your commitments and action plans to address the results from the independent assessments required by the Confirmatory Order, specifically in the areas of Operations, Engineering, Corrective Actions, and SC/SCWE. Action plans include efforts to reduce the backlog of maintenance and corrective action items, improve the corrective action program, and ensure a safety culture where individuals feel free to raise safety issues.

Going forward, we believe that additional inspection of your staff's actions beyond what would be specified for a licensee in the Regulatory Response column is warranted. These additional efforts are regarding the oversight intended to follow up on your commitments and action plans to address the results from the independent assessments required by the Confirmatory Order, specifically in the areas of Operations, Engineering, Corrective Actions, and SC/SCWE; and follow up on your action plans to reduce the corrective action and maintenance item backlogs.

The enclosed inspection schedule is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 12 months of the inspection plan are tentative and may be revised.

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact Christine A. Lipa, Chief, Branch 4, Division of Reactor Projects, at 630-829-9619 with any questions you may have regarding this letter or the inspection plan.

Summary

In summary, this letter is to inform you of the following four actions:

- Transition from the IMC 0350 process at Davis-Besse and the disbandment of the Oversight Panel to an augmented ROP;
- The Red (EA 03-025), Yellow (EA 03-131), and White (EA 03-172) findings will not be carried forward into the ROP Action Matrix;
- Oversight and inspection activities will be in accordance with Column II of the Action Matrix, with additional inspections to ensure compliance with the requirements as outlined in the March 8, 2004, Confirmatory Order; and
- Scheduled inspections for the next 18 months.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

James L. Caldwell
Regional Administrator

Docket No. 50-346
License No. NPF-3

Enclosure: As stated

See Attached Distribution

DOCUMENT NAME: G:\Branch TSS\eocjan2005\Plant Performance Summaries\Davis-Besse\Current Letter to Licensee with all 3 issues covered.wpd

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NAME	CLipa/sls		WRuland - by e-mail		SReynolds		JCaldwell	
DATE	05/13/05		05/11/05		05/12/05		05/19/05	

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cc w/encl: The Honorable Dennis Kucinich
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Davis-Besse
Inspection / Activity Plan
05/01/2005 - 10/31/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	SSDPC	**- SAFETY SYSTEM DESIGN & PERFORMANCE**	**7**			
1	IP 7111121	Safety System Design and Performance Capability		04/18/2005	05/06/2005	Baseline Inspections
	EXERCISE	**- BIENNIAL EVALUATED EXERCISE**	**4**			
1	IP 7111401	Exercise Evaluation		05/16/2005	05/20/2005	Baseline Inspections
1	IP 71151	Performance Indicator Verification		05/16/2005	05/20/2005	Baseline Inspections
	MAINT	**- BIENNIAL MAINTENANCE RULE INSPECTION**	**1**			
1	IP 7111112B	Maintenance Effectiveness		05/16/2005	05/20/2005	Baseline Inspections
	71114	**- EP EXERCISE & EP PI INSP**	**3**			
1	IP 7111401	Exercise Evaluation		05/16/2005	05/20/2005	Baseline Inspections
1	IP 71151	Performance Indicator Verification		05/16/2005	05/20/2005	Baseline Inspections
	93812	**- CONF. ORDER OPS IN-PROCESS '05**	**1**			
1	IP 93812	Special Inspection		06/20/2005	06/24/2005	Event Response Insp
	FY 2005	**- DAVIS-BESSE INIT PREP 06/2005**	**3**			
1	W90112	OL - INITIAL EXAM - DAVIS-BESSE		06/27/2005	07/01/2005	Not Applicable
	93812	**- CONF. ORDER CAP IN-PROCESS '05**	**1**			
1	IP 93812	Special Inspection		07/18/2005	07/22/2005	Event Response Insp
	FY 2005	**- DAVIS-BESSE INIT EXAM 07/2005**	**3**			
1	W90112	OL - INITIAL EXAM - DAVIS-BESSE		07/18/2005	07/29/2005	Not Applicable
	71152B	**- PROBLEM ID & RESOLUTION**	**4**			
1	IP 71152B	Identification and Resolution of Problems		08/01/2005	08/12/2005	Baseline Inspections
	93812	**- '04 SC/SCWE ACTION PLAN EFFECTIVENESS**	**5**			
1	IP 93812	Special Inspection		09/12/2005	09/16/2005	Event Response Insp
	93812	**- CONF. ORDER SC/SCWE IN-PROCESS '05**	**1**			
1	IP 93812	Special Inspection		11/14/2005	11/18/2005	Event Response Insp
	93812	**- CONF. ORDER ENGR IN-PROCESS '05**	**1**			
1	IP 93812	Special Inspection		12/05/2005	12/09/2005	Event Response Insp
	MOD/5059	**- MODIFICATIONS AND 50.59**	**2**			
1	IP 7111102	Evaluation of Changes, Tests, or Experiments		01/09/2006	01/27/2006	Baseline Inspections
1	IP 7111117B	Permanent Plant Modifications		01/09/2006	01/27/2006	Baseline Inspections
	71122.01	**- EFFLUENTS**	**1**			
1	IP 7112101	Access Control to Radiologically Significant Areas		02/06/2006	02/10/2006	Baseline Inspections
1	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		02/06/2006	02/10/2006	Baseline Inspections
	71114	**- BASELINE EP INSPECTION**	**1**			
1	IP 7111402	Alert and Notification System Testing		02/13/2006	02/17/2006	Baseline Inspections
1	IP 7111403	Emergency Response Organization Augmentation Testing		02/13/2006	02/17/2006	Baseline Inspections

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Davis-Besse
Inspection / Activity Plan
05/01/2005 - 10/31/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	71114 - BASELINE EP INSPECTION		**1**			
1	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		02/13/2006	02/17/2006	Baseline Inspections
1	IP 71151	Performance Indicator Verification		02/13/2006	02/17/2006	Baseline Inspections
	ISI - ISI/TI-150		**1**			
1	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-02		03/06/2006	03/31/2006	Safety Issues
1	IP 7111108P	Inservice Inspection Activities - PWR		03/06/2006	03/31/2006	Baseline Inspections
	ROUTINE - REMP, ACCESS CONTROL		**1**			
1	IP 7112101	Access Control to Radiologically Significant Areas		06/12/2006	06/16/2006	Baseline Inspections
1	IP 7112203	Radiological Environmental Monitoring Program		06/12/2006	06/16/2006	Baseline Inspections
	SSDPC - SAFETY SYS DESIGN&PERFORMANCE CAPABILITY		**6**			
1	IP 7111121	Safety System Design and Performance Capability		10/02/2006	10/20/2006	Baseline Inspections
	71111.11 - LIC OPERATOR REQUAL PROGRAM EVALUATION		**2**			
1	IP 7111111B	Licensed Operator Requalification Program		10/23/2006	10/27/2006	Baseline Inspections

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.